

Hab. San Blas, Western Mexico (*W. B. Richardson*).

A single male specimen captured in March was sent us by Mr. Richardson.

7. *Anæa Schausiana*, sp. n.

Deep purple-black, the bases of the wings and a subapical spot on the primaries bluish purple. Beneath rich brown, irrorated with silvery grey and black; an indistinct dark band runs from the inner margin towards the apex, a row of small white spots from the apex parallel to the outer margin; the secondaries have indistinct bands more or less parallel to the outer margin, and a small black spot at the base of the short tail, and another between it and the anal angle.

♀. The bases of the wings and two spots in the apex are paler and bluer than in the male, and the outer portion of the secondaries is not so dark a purple-black. Beneath much paler than the male and irrorated with ochraceous brown; the dark lines are more clear, and the tail to the secondaries larger and slightly spatuled at the end.

Hab. Coatepec, Mexico (*W. Schaus*).

This fine species belongs to the group of *Anæa* in which the inner margin of the primaries is falcate at the anal angle and the secondaries have a tail in both sexes (*cf.* Biol. Centr.-Am., Rhop. i. p. 340). It has no near allies in the Mexican fauna.

We are indebted to Mr. Schaus for a pair of this species. They were taken by himself at Coatepec, near Jalapa, in the Mexican State of Vera Cruz.

XVII.—*A Visit to Damma Island, East Indian Archipelago.*

By JAMES WALKER.—*With Notes on the Fauna*, by R. B. SHARPE, G. A. BOULENGER, E. A. SMITH, R. I. POCOCK, C. O. WATERHOUSE, C. J. GAHAN, W. F. KIRBY, and F. A. HERON.

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COLEOPTERA LONGICORNIA and PHYTOPHAGA.

By C. J. GAHAN.

LONGICORNIA.

NEOMICRUS, gen. nov.

Male.—Eyes completely divided. Antennæ longer than the body, sparsely ciliate; first joint gradually thickened into a club in its distal half; fourth joint about equal in length to the first and perceptibly longer than the third;

the fifth and following joints subequal to one another and each scarcely longer than the fourth. Prothorax elongated, unarmed, slightly narrowed from the beginning of the posterior third to the base. Elytra about half as long again as the prothorax, and not wider across the base than the greatest width of the prothorax; apices rounded. Pygidium exposed. Femora clubbed in their distal portion, pedunculate at the base. The anterior coxæ are closely approximated; the prosternal process is in the form of a very short triangle, whose backwardly directed apex does not reach as far as the middle point between the coxæ; the cavities of the latter are distinctly open behind. The mesosternal process is narrow and triangular in form.

This genus seems best placed in the group of the Graciliides.

Neomicrus Walkeri, sp. n.

Piceo-brunneus, capite prothoraceque griseo breviter pubescentibus; elytris dense punctatis et griseo-setosis, utrisque plaga vel macula inter basin mediumque paullo pallidiore; antennis testaceis, articulorum apicibus leviter infuscatis; femorum tibiaramque basibus testaceis.

Long. 4, lat. 1 mm.

Hab. Damma Island (*J. J. Walker*). Under bark.

Almost entirely of a dark reddish-brown colour, with the antennæ, the coxæ, the bases of the femora and tibiæ, and an obscure patch between the middle and base of the elytra testaceous. The head and prothorax have a covering of very short greyish pubescence. The prothorax appears to be very closely and finely punctured. The elytra are somewhat densely and more strongly punctured, each of the punctures bearing a greyish seta. The shoulders of the elytra are very slightly prominent.

Though slightly suggestive of *Gracilia pygmaea*, Fabr., the present species is markedly distinct. The elytra are proportionally much shorter and also narrower, the middle and posterior femora are more abruptly clavate, and the joints of the antennæ bear different proportions.

Purpuricenus quadrinotatus, White.

Damma Island (*J. J. Walker*); Australia and New Guinea.

Coptops auguralis, Pasc.

Damma Island (*J. J. Walker*); Timor (*Wallace*).

Olenecamptus bilobus, Fabr.

Damma Island (*J. J. Walker*).

This is a widely distributed species.

Prosoplus Banksi, Fabr.

Damma Island (*J. J. Walker*).

For the synonymy and distribution of this species see *Trans. Ent. Soc.* 1893, p. 192.

Oopsis Moorei, sp. n.

Subangusta, pube fulvo-grisea sat dense vestita: prothorace fortiter sat dense punctato; elytris seriatim punctatis, utrisque lincola basali minima et punctis duobus pone medium albescentibus; apicibus paullo divergentibus acutis.

Long. 7, lat. 3 mm.

Hab. Damma Island, Malay Archipelago.

Head almost impunctate, covered with a greyish or fulvous pubescence. Antennæ (♂) a little longer than the body; third and fourth joints slightly curved, the fourth barely longer than the third. Prothorax distinctly and rather thickly punctured. Elytra almost quite regularly punctured in rows; each elytron bears a very minute whitish line or point at the base, and two almost equally minute white spots, placed somewhat transversely, a little beyond the middle. The portion of the elytra which lies behind these spots is covered with a pubescence of a somewhat paler fulvous tint than that which covers the part in front.

This species is a little stouter and more convex in form than most of those which Pascoe included in his genus *Sybra*; but it is distinctly narrow as compared with *Oopsis nutator*, Fabr. It seems to be nearly enough allied to *Oopsis porcellus*, Pasc. (*Sybra*).

PHYTOPHAGA.

Aulacophora tetraspilota, Baly.

Occurs also in Celebes, Gilolo, Batchian, Amboyna, and Timor.

Aulacophora flavomarginata, Duviv.

Occurs also in Sumatra, Java, Borneo, Celebes, Amboyna, Timor, Flores, and Kei Islands.

Aulacophora, sp.

This species, represented by one female example only,

appears to be new. It resembles *A. excisa*, Baly, in colour and in most of its other characters, but the emargination of the last ventral segment is different in form.

Galerucella ficus, Montrouz.

Galerucella thoracica, Baly.

This species occurs, widely distributed, in the Australian region. In the British Museum there are examples from the Salomon Islands—Alu (*Woodford*), Woodlark Island, New South Wales, Lizard Island, North and North-west Australia, the islands in Torres Straits, New Guinea, and other islands of the Malay Archipelago as far as Celebes.

Coptocycla, sp.

One example only.

LEPIDOPTERA. By F. A. HERON.

LEPIDOPTERA RHOPALOCERA.

The forty-three butterflies collected upon Damma Island belong to twenty species, five of which were new to the British Museum collection. The larger number are Euplœinæ or Lycænidæ, and it is noteworthy that the collection includes no Satyrinæ or Elymniinæ.

They are distributed as follows :—

Nymphalidæ.

Anonia plexippus, Linn.

A single female of this wide-ranging species was obtained.

Salatura laratensis, Butler.

Three males and one female.

Chanapa sacerdos, Butler.

Six males and two females were taken, which are interesting as showing the gradual disappearance of the spot between the first and second branches of the median vein of the fore wings.

Calliplea darchia, McLeay, var. *priapus*, Butler.

Two males and one female.

Calliplœa visenda, Butler.

One male. This is closely allied to the foregoing species.

Hypolimnas alimena, Linn.

One damaged male of this common Oceanian form was taken, which had the transverse band on the fore wings whiter than in any other male seen previously by me.

Neptis pampangæ, Felder?

A pair.

Lycænidæ.

Nacaduba aluta, Druce.

Two males and one female.

Lampides alianus, Fabr.

A pair.

Castalius, sp.

One specimen belonging to a species allied to *C. roxus*, Godart.

Cyaniris, sp.

A male belonging to a species nearest to *C. puspa*, Horsfield.

Zizera pygmaea, Snellen.

One male.

Zizera phæbe, Murray.

Two males.

Catochrysops, sp.

A single female belonging to a species not in the B. M. Coll.

Spalgis epius.

A specimen of a curious variety of *S. epius*, Westwood, ♀; the colour of the upperside very much greener grey than usual; the strigæ upon the underside show through on the hind wings more strongly than in the common brownish form.

The single male *Castalius*, which on the upperside somewhat resembles *C. hamatus*, Moore, obtained on Damma Island, is noteworthy for its peculiar markings on the underside, and

forms the type of a new species, characterized as follows, and called after my friend J. M. C. Austin :—

Castalius Austini, sp. n.

Antennæ. Shaft black-brown above, semi-ringed with white below; club below is of much redder brown.

Head. Forehead cream-white scaled. *Eyes* rich deep brown and hairy.

Palpi dark brown-black; the second joint creamy scaled below.

Colour.—*Thorax* and *abdomen* dark brown-black below, with occasionally lighter pubescence of greenish iridescence; below cream-white, the last joints of the abdomen marked off by three creamy scalings at the sides as well.

Legs dark brown, with cream-white scalings above; but only the fore legs were retained in this specimen.

Expanse of wings 28 millim., greatest breadth of fore wing 7 millim.; length of hind wing 9, breadth $6\frac{1}{2}$ millim.; length of thorax $2\frac{1}{2}$, abdomen $5\frac{1}{2}$ millim.

Wings. Above: brown-black, crossed from the centre of the disk of the fore wing to the inner margin of the hind wings, about one third from the base, by a cream-white band running in the direction of a line from apex of fore wing to centre of its inner margin; on the fore wing its breadth is about one fifth of the length of inner margin, but expands at the end of the discoidal cell to nearly twice that width, touching vein 6 above, and is slightly cut into by a dark mark which bounds the discoidal cell; on the hind wings the inner margin of the band is in a straight line with that of the fore wings, but the band as a whole is slightly broader, its width by the discoidal cell being almost half as much as its breadth elsewhere.

The cilia are of the same colour as the wings.

Below: the same band is apparent; the costa is dusted with brown, and at its base a patch of almost lemon-coloured scales extends for 5 millim. in length and $1\frac{1}{2}$ millim. in breadth. There is a submarginal band of creamy white which follows on its inner side the contours of the discal band, and on its outside is parallel to the wing-border; this band reaches from costa of fore wing to inner margin of hind wing; the resulting band of dark between the discal and submarginal band averages a little wider than the discal band.

At the outer margin of the hind wing the dark border tends to split into lunulate spots and to allow a narrow cream-white line to separate it into two portions, the outer forming a mere thread of dark.

Cyaniris dammæ, sp. n.

Expanse 30 millim.

Above somewhat resembling *puspa*, Horsfield (from Java), but the black-brown borders are much reduced in breadth, especially towards the internal angle of the wings; on the hind-wing-costa, however, the brown-black is more abundant than in *puspa*. Where the iridescence on the wings does not show, the ground-colours show more slaty and with less grey-white scalings than in *puspa*; the iridescence, too, is of a more brilliant cerulean-blue in *dammæ*. Abdomen, thorax, head, and antennæ much as in *puspa*. Below the general appearance is somewhat like *C. ladonides*, de l'Orza, from Japan, the ground-colour being a very bluish white, with silvery-blue scales at the base; the marginal row of dots is very slightly marked, and the submarginal lunular line is rather fainter on the fore wing. The discal row of spots on the fore wing forms a curve reaching the costa one third from apex and the inner margin about one fourth from the angle; from this angle the first, third, fourth, and fifth spots follow the direction of the curve, but the second inclines towards the base of the wing; the sixth spot is thrown a little inwards from the others.

On the hind wings are dark spots at the origin of vein 8 and two others between veins 8 and 7 dividing the costa roughly into three parts; below the second spot is another in the cell, and in a line with these a spot on the inner angle from a row of four small spots curves towards the outer spot on the costa; there is a dark spot one fourth along the inner margin from the base of the wing, and a small spot rather outside the curve between veins 2 and 1 *b*.

Papilionidæ.

Terias pumilaris, Butler.

One male.

Terias hebridina, Butler.

Two males.

Terias maroënsis, Butler.

Three females.

Huphina rachel, Boisd.

Two dwarfed males.

Hesperiidæ.

OCYBADISTES, gen. nov.

The three small Pamphilinæ belong to an undescribed genus nearest to *Padraona*, from which it differs in possessing much broader wings and in having vein 3 of the fore wing further from the end of the cell. The sexual mark on the fore wings, where present, is a black slightly lunulated streak crossing the disk from vein 1 to vein 4, instead of the small streak over the centre of vein 1 of the fore wing which some species of *Padraona* possess.

The genus will include *marnas*, Felder, and *Walkeri*, sp. n., the latter of which will be the type.

Lascivia, Rosenstock, has a small streak similar to that of *Padraona*, though the shape of its wings and its neuration would otherwise ally it to *marnas*, as stated by Watson (P. Z. S. 1893, p. 102).

The genus may be thus characterized:—

Antennæ about three fifths the length of the costa of the fore wings; club of moderate size, elongate, with a slight terminal crook rather longer than the thickness of the club.

Palpi. Second joint thickly scaled, forming with the third joint a quarter circle; third joint about half the length of the second joint, very slender, obtusely conical, and suberect.

Fore wings. Breadth rather more than half the length of the costa; inner margin rather longer than outer margin; cell less than two thirds length of costa; vein 8 reaching costa at apex of wings; lower discocellulars two thirds length of middle; vein 5 considerably nearer to vein 4 than to 6; vein 3 distant from 4 about the length of the middle discocellular, and vein 2 a similar distance from vein 3 and very slightly nearer end of cell than base of wing.

Hind wings. Outer margin even, slightly excised between veins 2 and 1*b*; vein 7 well before end of the cell (except in *marnas*, ♂, where it is emitted just before the end); discocellulars very inconspicuous; vein 5 wanting; vein 3 close to end of cell, twice as far from 2 as from 4; vein 2 much nearer the end of cell than base of wings.

On the upperside of the costa of the hind wings of both sexes are stout backwardly-directed hairs arranged in a short row, and in addition fine long hairs projecting outwards and forwards, which, inconspicuous in the females, are largely developed in the males.

The males are usually provided with a discal sexual streak on the upperside of the fore wing, consisting of the more or less lunular silky marks between vein 1 and vein 4, which

show when magnified a large proportion of fine long scales among the broader ones.

Two pairs of spines are present on the hind tibiæ.

The species I dedicate to the enthusiastic collector to whose efforts the National Collection is indebted for many entomological treasures.

Ocybadistes Walkeri, sp. n.

Expanse of wings 22 millim.

The general scheme of marking and coloration is much as in *marnas*, Felder, but the orange markings of *Walkeri* are not so red as in Felder's species, especially on the underside, where the brownish markings of *marnas* are represented by an ashy green shaded to a black-brown on the inner margin of the fore wings, and the orange markings are of a pale sienna colour on the fore wing, and on the hind wing inner margin ochreous, shaded to the orange of the upperside markings.

Antennæ dark black-brown, shaft semi-ringed with ochreous, club dark black-brown above, ochreous below, crook dark; palpi golden yellow towards the top, almost lemon-coloured below; this pale hue extends below the thorax and the abdomen; forehead with golden-orange scales; collar, patagia with scalings of similar colour, especially large on the latter.

Thorax thickly covered with yellow hairs of greenish iridescence. *Abdomen* golden orange.

Fore wings golden orange; costa black-brown, outer margin with a black-brown border from apex to inner angle, averages nearly one third the breadth of the inner margin, but reduced by intrusion of the orange ground between veins 6 and 4 to about half that width, below and to the side of the discoidal cell the dark colour stretches to an almost similar width, at the side and below vein 6 sends out a spur which sometimes reaches the dark border; dark scalings occur below vein 1, and from the costa opposite the end of the cell extends a small spur of dark, which may sometimes anastomose with the dark bounding the cell, thus leaving a small spot of the orange ground isolated.

Hind wings of similar coloration, but the orange is slightly deeper in tone and its borders much more irregular than in *marnas*, running out along the veins, especially opposite the end of the cell, and sending a spur towards the costa along vein 7; the orange fleck in the cell is more conspicuous than in *marnas*.

Below the markings show more faintly; the black-brown

represented by an ashy green, except towards the base and inner margin of the fore wings, and the golden tint paler.

Cilia of the hind wings concolorous with the golden hue, but much browner on the fore wings except at the anal angle.

The species is represented in the British Museum by specimens from Port Darwin as well as Damma Island, and has a close ally of rather greater expanse and darker under-side colouring ranging from Moreton Bay to Sydney.

LEPIDOPTERA HETEROCCERA.

Syntomidæ.

Hydrusa, sp.

Liparidæ.

Chionophasma paradoxa, Butler.

Pyralidæ.

Sylepta plagiatalis, Walk.

Noctuidæ.

Selepa, sp.

HYMENOPTERA. By W. F. KIRBY.

Nine species were obtained, of which two are here described as new.

Formicidæ.

Odontomachus hæmatodes.

Formica hæmatoda, Linn. Syst. Nat. i. p. 582. n. 16 (1758).

A species found in all the warmer parts of the world.

Pheidologeton, sp.

Two large workers of a species allied to *P. megacephala*, Smith, but with the head bright chestnut-red and the middle of the vertex very smooth and shining.

Rhagigaster, sp.

Four female specimens apparently belonging to this genus. They are from 5 to 7 lines long, rufo-testaceous, with the abdomen black, more or less distinctly banded with rufo-

testaceous. It appears undesirable to describe the species as new from female specimens only.

Scoliidæ.

Dielis cultrata, sp. n.

Long. corp. 14 millim.

Female.—Deep black, very shining, the hair mostly black, except on the lower part of the face, where it inclines to cinereous, and some of the hairs on the body and legs are tipped with cinereous. Face and thorax densely punctured, but the vertex, the centre of the mesothorax, the sides of the scutellum and postscutellum, and the hinder part of the metathorax, which is tuberculate in the middle, almost smooth. Abdomen slightly iridescent, the segments punctured in front and the first also behind; the following segments mostly only with a row of bristle-bearing punctures before the extremity. Legs very bristly, strongly punctured on the upper surface; hind femora with a smooth ferruginous knife-like plate at the extremity beneath (as in other allied species). Wings subhyaline, with a strong violet reflection; inner recurrent nervure of front wings bent at nearly a right angle.

Agrees nearly with the description of *D. micans*, Guér., from Bouru, but smaller and with the costa not ferruginous.

Eumenidæ.

Eumenes arcuata, var.

Vespa arcuata, Fabr. Syst. Ent. p. 371. n. 40. (1775).

The thorax in the specimen from Damma Island is black, with detached yellow spots, and the yellow colouring on the petiole and abdomen is rather more extended than usual.

Common in the Indian and Indo-Malayan regions.

Eumenes Walkeri, sp. n.

Long. corp. 25 millim.

Female.—Black, varied with yellow. Head black; clypeus rather long and narrow, yellow, emarginate below, the extremities rather pointed; a yellow stripe below the antennæ, extending to the orbits, and produced upwards between the antennæ into a somewhat pear-shaped spot above them; the orbits beyond the antennæ and the emargination of the eyes filled up with yellow, the black space below the ocelli connected with the black vertex, but descending in a horse-shoe form to the black antennal tubercles, strongly punc-

tured; hinder orbits with a narrow yellow line. Antennæ black; flagellum rather paler and sericeous. Thorax black; prothorax yellow in front and on the upper part of the sides, but with the part adjoining the head black, very smooth and shining; mesothorax with two large yellow curved spots on the sides before the middle, and two short subparallel yellow lines just behind the middle; pleura with a yellow stripe extending from just before the wings nearly to the middle coxæ; scutellum more strongly punctured than the thorax, yellow in front, black behind; postscutellum yellow, slightly edged with black in front; metathorax yellow above and round the rather obtuse angles of the sides below, deeply grooved in the middle, the groove black, the black gradually widening below and more broadly above, below which point a broad slightly oblique bar is thrown out on each side; sides of metathorax black, sericeous; petiole shaped as in *E. flavopicta*, Blanch., and allies, basal third black, with a long oval yellow spot on each side, the remainder yellow on the sides, black below, with a yellow spot at the extremity, and connected in the middle with a black lateral spot; the median line above is mostly black, terminating in a large spot before the extremity, which is also marked with a black spot, trifold in front. Abdomen with the first segment yellow, with black more or less trifold markings at the base and extremity, and with a broad black band, ceasing on the sides, across the middle, with the edges irregularly denticulated; the remaining segments with the median line black; the second segment black at the base and yellow at the extremity; the third, fourth, and fifth yellow, black at the extremity, and the sixth entirely black. Front legs ferruginous, spotted with yellow, and lined with black; four hind legs ferruginous, femora mostly blackish, and tibiæ and tarsi lined with black and slightly with yellowish; last joint of tarsi wholly reddish, except the claws. Wings smoky hyaline.

Closely allied to *E. flavopicta*, Blanch., but differs in the much longer and narrower clypeus.

Rhynchium brunneum.

Vespa brunnea, Fabr. Ent. Syst. ii. p. 264. n. 41 (1793).

A common East-Indian species.

Vespidæ.

Polistes extraneus, var.

Polistes extraneus, Kirb. P. Z. S. 1883, p. 344.

Two females, differing from the typical specimen from

Maroe (Timor-Laut Islands) in the rather darker colouring, especially towards the apex of the abdomen, and in the narrower yellow edging to the first segment of the abdomen. Without a better series from both localities it would be premature to treat the Damma Island insect as distinct.

Apidæ.

Megachile ornata.

Megachile ornata, Smith, Cat. Hym. Ins. B. M. i. p. 183. n. 114 (1853).

A single specimen in poor condition, apparently belonging to this species, which is known from India, Borneo, and Sumatra.

HEMIPTERA HETEROPTERA. By W. F. KIRBY.

Only eight or nine species were obtained on Damma Island, belonging to the genera *Dysdercus*, Am. & Serv., *Melamphaus*, Stål, *Physopelta*, Am. & Serv. (?), *Capsus*, Fabr., *Brachyrhynchus*, Lap., *Mezira*, Am. & Serv., and *Euagoras*, Burm. The species cannot be determined with accuracy at present, but among them is the widely dispersed *Brachyrhynchus orientalis*, Lap.

ORTHOPTERA. By W. F. KIRBY.

Græffea coccophaga (?).

Alopus cocophages, Newp. Phil. Trans. 1844, p. 288, pl. xiv. fig. 4.
Lopaphus coccophagus, Westw. Cat. Phasm. p. 99 (1859).

Mr. Walker met with several pairs of a species of Phasmidæ, which he describes as of a delicate green, about 4 inches long, and emitting a milky fluid smelling strongly of peppermint. The male was more slender than the female. It is not unlikely that it was the present species, which is very common and destructive to cocoanuts throughout the South Sea Islands, and which might perhaps also feed on *Pandanus*; but the specimens forwarded by Mr. Walker do not appear to have reached the Museum.